THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. X.] WEDNESDAY, MAY 28, 1834. [NO. 16.

PATHOLOGY AND TREATMENT OF CHRONIC GASTRITIS.

FROM A LECTURE BY WILLIAM STOKES, M.D.

GENTLEMEN,—I shall begin to-day with the treatment of chronic gastritis, and I beg of you to bear in mind what I mentioned at my last lecture, that this disease, in its true and pathological meaning, is not sufficiently recognized. In general, it gets some wrong name or other; and as many practitioners are in the habit of prescribing for names, it generally meets with wrong treatment. It is called everything but what it is, and its remedies are as numerous and as various as its appellations. By some, it is called dyspepsia, and is treated with bitters, astringents, and stimulants; by others, it is termed constipation, and treated with purgatives; the school of Abernethy look upon it as an affection of the liver, and prescribe blue pill and black draught; others give it the name of hypochondriasis, and exhaust the whole catalogue of nervous and anti-dyspeptic medicines in attempting its removal; in fact, it is called everything but what it is, and the result is an unsteady and mischievous empiricism.

You will recollect a fact, to which I alluded in my last lecture, that the physiological condition of the stomach requires that it should be subject to frequent excitements of its vascular tissue, and that, this increased vascularity being the consequence of a natural process, digestion is, generally speaking, exempt from any kind of danger. If the brain or lungs were to experience an equal increase of vascularity, sensibility, and excitement, the consequences would be dangerous, or perhaps fatal, and we should have pulmonary and cerebral diseases produced. But though the stomach enjoys such a remarkable exemption from the liability to acute inflammation, under circumstances of repeated vascular excitement, yet the slow, insidious, chronic gastritis is an exceedingly common affection. I feel convinced that many persons die of it, or of the extensive class of fatal diseases which it frequently induces. But I rejoice to say, that we have good reason to hope that the progressive amelioration of medical science will materially diminish the amount of human suffering from this cause. As physiological medicine advances, the number of those who die of unrecognized chronic visceral disease will be less and less, because diagnosis will become more extended and certain, and practice more simple and successful.

The first thing you should do, when called to treat a case of dyspepsia, is to ascertain whether it be a purely nervous disease, or a chronic gastritis. The majority of practitioners give themselves no trouble about this matter, not recognizing the fact, that, of the number of dyspeptic persons who seek for medical advice, a considerable proportion are

really laboring under a chronic gastritis, and forgetting, that, in consequence of long-continued functional injury, what was at first but a mere nervous derangement may afterwards become complicated with organic disease. You must also bear in mind, that the stomach is perhaps placed under more unfavorable circumstances for bringing about a cure than any other organ, because the life of the individual demands that the stomach, though in a state of inflammation, should still continue to perform its functions. In treating diseases of other organs, you will have the advantage of a comparative state of rest; but, in a case of the stomach, if you wish to preserve life, you cannot prohibit nutriment, and consequently you must run the risk of keeping up those periodic vascularities which its condition requires, which, though harmless in health, becomes a source of evil when the stomach is diseased. The obvious deduction from this is, that the cure of a chronic gastritis depends as much upon regimen as upon medical treatment, and particularly where the symptoms have arisen from long-continued excitement, as in the case of persons who live highly. Here the treatment chiefly depends on regulating the diet; and if your patient has sense enough to live sparingly for a few weeks or months, you may be able to effect a cure without other treatment. The great error is, that most practitioners attempt to cure the disease by specifics, and when these fail they then go to the symptomatic treatment, prescribing sometimes for acidity, sometimes for nausea, sometimes for flatulence, sometimes for constipation, or "the liver," or debility.

You should be careful in the examination of such cases, and should try to ascertain whether these symptoms may not depend upon inflammation of the stomach; for as long as the patient is in this state, the less you have recourse to symptomatic or specific treatment the better. It is hard to mention one single medicine which in this state will not prove stimulant; and if the stomach be unfit for stimulants, it must be unfit for the generality of medicines. There are numbers of cases of persons laboring under chronic gastritis, which have been cured by strict regulation of diet, and by avoiding every article of food requiring strong digestive powers. We find that articles of diet vary very much in this respect; some are digested with ease, some with pain. We might express this otherwise, by saying that some require very little excitement of the stomach, and others very great vascular excitement. Patients, in this irritable state of stomach, can scarcely bear any kind of ingesta; and when you consider the great vascularity, thickening of the mucous membrane, and tendency to organic disease, you will be induced to think that everything entering the stomach should be of the mildest kind, and not requiring any powerful determination of blood to that organ.

If you continually prescribe for symptoms, neglecting or overlooking the real nature of the disease, giving arsenic to excite the system, and iron to remove anæmia, and bitter tonics to improve the appetite, and alkaline remedies for acidity, and carminatives to expel flatus, you will do no good; you may chance to give relief to-day, and find your patient worse to-morrow; and at last he will die, and you may be disgraced. On opening the stomach after death, you are astonished to find extensive ulceration, or, perhaps, cancerous disease. Very often, in such cases, practitioners say that it is cancerous disease, and that no good can be

done. But the thing is to be able to know, when you are called to a case, whether it is a case of mere nervous dyspepsia, or chronic inflammation of the stomach. Some of the best pathologists think that most of the cancerous affections of the stomach are in the beginning only chronic inflammations of that organ.

I believe we have not yet in this country adopted the plan of moderate application of leeches to the epigastrium in cases of chronic gastritis. I have seen in many cases great benefit result from the repeated application of a small number of leeches to the epigastrium, at intervals of two or three days. Here is a point which you will find very useful in practice. You will meet with cases which have lasted for a long time; cases where there is strong evidence of organic disease, and which have resisted the ordinary dyspeptic treatment. You will be called frequently to treat these three different cases—where the disease has been of long duration, where there is distinct evidence of organic disease, and where the disease has resisted the ordinary dyspeptic treatment. Here is a case of a patient laboring under what is called indigestion, and which has resisted the stimulant, and tonic, and purgative treatment. Here is one fact. In the next place, the disease is chronic, and the probability is, that there is inflammation, and consequently that there is chronic gastritis. Now if, in such a case, you omit all medicine by the mouth, apply leeches to the epigastrium, keep the bowels open by injections, and regulate the diet, you will often do a vast deal of good. I have seen, under this treatment, the tongue clean, the pain and tenderness of the epigastrium subside, the acidity, thirst, nausea, and flatulence removed, the power of digestion restored, and all the symptoms for which alkalies, and acids, and tonics, and purgatives were prescribed, vanish under treatment calculated to remove chronic inflammation of the stomach.

What is next in importance to regulated regimen and local bleeding? A careful attention to the bowels, which in chronic gastritis are generally constipated, and this has a tendency to keep up disease in the upper part of the digestive tube. Is this to be obviated by introducing purgative medicine into the stomach?—No. If you introduce strong purgative by the mouth, you will do a great deal of mischief. You must open the bowels by enemata, or, if you give medicine by the mouth, by the mildest laxatives in a state of great dilution. A little castor oil, given every third or fourth day, or a little rhubarb with some of the neutral salts, will answer in most cases. The diet, too, can be managed, so as to have a gently laxative effect. The use of injections is, however, what I principally rely on. I have seen many cases of gastritis cured by the total omission of all medicine by the mouth, by giving up every article of food which disagreed with the stomach, and by the use of warm water enemata. I have seen this treatment relieve and cure persons whose sufferings had lasted for years previous to its employment, and who had been considered by eminent practitioners to labor under organic disease of an incurable nature. It is important that you should bear this in mind. The old purgative and mercurial treatment of gastritis, I am happy to say, is rapidly declining; and British practitioners are now convinced, that they cannot cure every form of dyspepsia by the old mode of treatment. I do not deny that many diseases of the digestive tube may be benefited

by the mild use of mercury and laxatives; but I think I have every reasonable and scientific practitioner with me in condemning the unscientific routine practice, which was followed by those who took the writings of Abernethy and Hamilton for their guide. I do not say that, where cases of gastric inflammation, treated after the plan of Mr. Abernethy, have proved fatal, the medicines have destroyed life; I merely assert that the patients died of inflammation, over which these medicines had no control; and the error lay in mistaking and overlooking the actual disease, as much as in its maltreatment. You will find some practitioners (they are becoming fewer in number every day), who seem to have but two ideas—the one a purgative, the other a pot full of fæces; but the connecting link,—the gastro-enteric mucous membrane,—that vast expansion, so complicated, so delicate, so important, seems to be totally forgotten. But practitioners are now beginning to see that purgatives are not to be employed empirically; that they should be administered in many cases with great caution, and with a due attention to the actual condition of the alimentary canal, and that they have been a source of great abuse in the medical practice of these countries.

Next to leeching and a proper regulation of the bowels, is the employment of gentle and long-continued counter-irritation over the stomach. This may be effected by the repeated application of small blisters, or by the use of tartar emetic ointment. I have been in the habit of impressing upon the class, that the tartar emetic ointment used in these countries is too strong, the consequence of which is an eruption of large pustules, which are excessively painful, and often accompanied with such disturbance of the constitution as amounts to symptomatic fever. In fact, tartar emetic ointment of the ordinary strength produces so much irritation, that few patients will submit to it long. The form which I recommend you to employ is the following:—Take seven drachms of prepared lard, and, instead of a drachm of tartar emetic, which is the usual quantity, take half a drachm, directing in your prescription (this is a point of importance) that it be reduced to an impalpable powder; and you may add to it what will increase its action, one drachm of mercurial ointment. This produces a crop of small pustules, which give but little pain and are easily borne; and the counter-irritation may be kept up in this way for a considerable time, by stopping, for a few days, until the eruption fades away, and then renewing the friction. I have often seen the utility of this remedy exemplified in cases of chronic gastritis, where the symptoms of gastric irritation, which had subsided under the employment of friction with tartar emetic ointment, returned when it was left off, and again vanished when it was resumed. The case of the celebrated anatomist, Beclard, furnishes a very remarkable proof of the value of a well-regulated diet and repeated counter-irritation in the treatment of this disease. While he was engaged in the ardent prosecution of his professional studies he got an affection of the stomach, which he considered to be a chronic gastritis, and immediately put himself under a strict regimen, using at the same time repeated counter-irritation. He kept up the counter-irritant plan for a considerable length of time, for he found that, when he discontinued it, the gastric symptoms had a tendency to return. In this way he got completely rid of the disease. Several years

afterwards he died of an attack of erysipelas; and, on opening his stomach, the cicatrix of an old ulcer was discovered in the vicinity of the pylorus, which was exactly the spot to which he had referred his pain during the continuance of his gastric affection.

Gentlemen, there is perhaps no science in which the motto "*medio tutissimus ibis*" is of more extensive application than in medicine. Some physicians on the Continent, particularly the disciples of Broussais, having repeatedly witnessed the advantages of strict regimen and local depletion in chronic gastritis, have pushed this practice too far. They seemed to forget that the system requires support and nutrition, which can be effected only through the agency of the stomach; they saw the evils which result from the use of stimulating food in cases of chronic gastritis; and, looking to these alone, they ran into the opposite extreme, the consequence of which was, that they kept their patients so long upon low diet, that they actually produced the very symptoms which they wished to remove. The patients became dyspeptic from real debility of the stomach and the whole frame. You remember a general law of pathology to which I have alluded on a former occasion, and which I shall again mention, as it illustrates this point, namely, that opposite states of the economy may be accompanied by the same symptoms. Thus we observe, that palpitation may depend on two different causes—on a sthenic or asthenic condition—on the presence of too much or too little blood in the heart. Now, it frequently happened that patients, laboring under chronic gastritis, and who had been treated for a long time after the strict plan adopted by the Broussaists, finding themselves not at all improved, went to other physicians who had different views, and were rapidly cured, by being put upon a full nutritious diet. In this way numerous cases, which water diet and depletion had only aggravated, were relieved, and the consequence was, that a mass of facts was brought forward and published, not long since, by a French author, against the antiphlogistic treatment of dyspepsia and chronic gastritis. It must be stated, however, that the cases which he published were chiefly those in which the depleting system had been carried to excess, and that they cannot, therefore, be received as proofs of the value of a stimulating diet in the treatment of chronic inflammation of the stomach. Bear this in mind; the sooner you can put your patient on a nutritious diet, the better will it be for him. It would be absurd to keep a patient for many months, as the Broussaists have done, on slops and gum-water. It will be necessary for you to feel your way and improve the diet gradually. Commence by giving a small quantity of mild nutritious food; if your patient bears it well, you can go on; if the gastric symptoms return, you can easily stop. If a small portion of the milder species of food rests quietly on the stomach, you may increase it the next day or the day after, and thus you proceed to more solid and nutritious aliment, until the tone of your patient's stomach regains the standard of health. Never lose sight of this fact, that you may have a case of dyspepsia depending on a chronic gastritis, in which, though you remove the *inflammation* by a strict antiphlogistic treatment, you may not by this remove the *dyspepsia*; and if you continue to leech, and blister, and starve your patient *after the inflammatory state is removed*, you will do great injury. Such a patient, falling

into the hands of another practitioner who treated him on a different system, might be relieved, and his case quoted against you and your treatment, though this, at the commencement, was judicious and proper.

With respect to internal remedies, the school of Broussais think that there is nothing required but cold water and gum. This is going too far. In a former lecture I have drawn your attention to the fact, that in the treatment of acute inflammation there is a point where antiphlogistics should cease, and where tonics and stimulants are the most efficient means of cure. Of this fact the disciples of Broussais appear to be ignorant, and they consequently declared against every remedy for chronic gastritis except leeches and cold water. Now is this right? I think not. We find that, in all cases of gastric inflammation, a change in medication seems to be useful at some period of the disease, that is, a change from antiphlogistics to tonics and stimulants; and I believe that in cases of chronic gastritis these remedies may be used with very great advantage, having, of course, premised depletion and counter-irritants. I believe, too, that most of the remedies, which we see every day unsuccessfully employed, would have acted beneficially if the preparatory treatment which I have mentioned had been adopted. Among the best remedies of this kind is the oxide of bismuth; I have seen more benefit from the use of this than of any other medicine, after the treatment already alluded to. Generally speaking, the list of internal remedies for chronic gastritis is very small; but after the use of antiphlogistics you may prescribe the vegetable tonics and oxide of bismuth with advantage. The most decidedly valuable remedy, however, in the after stage of a chronic gastritis, is the acetate of morphia, which I am convinced has a very powerful effect in allaying chronic irritation of the stomach. Dr. Bardsley of Manchester, in one of his public works, entitled "Hospital Facts and Observations," adduces many cases of gastric irritation which were completely relieved by the use of this remedy, and I am perfectly satisfied of the truth of his statements. It may be said that Dr. Bardsley's cases were only instances of dyspepsia. But as his cases were extremely numerous, some of them of long standing, and the symptoms very severe, the great probability is, that some of them at least must have been cases of chronic gastritis. I know very few books, the perusal of which I would more strongly recommend to you, than Dr. Bardsley's accurate and instructive work. The great besetting sin of medical writers is, that their statements of successful practice are grounded on a very limited number of cases, or that, in publishing the result of their practical investigations, they only give their successful cases, and leave out those in which the treatment recommended has been found inefficacious. Yet this is a circumstance which should never be neglected. If a man declares that he has discovered a cure for gastritis, or dyspepsia, and brings forward one hundred cases in which the remedy has done good, the statement is still unsatisfactory and insufficient, because there may be one thousand cases in which it has totally failed. Unless he comes forward and gives both his successful and unsuccessful cases, of what value are his statements? Dr. Bardsley, with the candor and good sense which always characterize the philosophic inquirer, gives the result of *all* his cases, forms them into tables, and then leaves his readers to

judge for themselves. From an inspection of these tables, you will be convinced of the efficacy of acetate of morphia in the treatment of chronic gastritis. I have been in the habit of using it with the most gratifying results after leeching, regulating the diet, and paying proper attention to the state of the bowels. There are some forms of the disease in which it is more useful than others. The particular form, in which it proves most serviceable, is where there is a copious secretion of acid from the stomach (that form in which all kinds of alkalies have been exhibited), where severe pain and constant acidity are the prominent symptoms. Here I have seen the acetate of morphia act exceedingly well. You may begin with one-twelfth of a grain, made well into a pill with crumb of bread, or conserve of roses, twice a-day; the next day you may order it to be taken three times, and you may go on in this way until you make the patient take from half a grain to a grain and a half in the 24 hours. I shall here mention the circumstances of a case, which I do not mean to bring forward as an instance of cure, but as an illustration of the extraordinary power which acetate of morphia possesses in relieving gastric irritation. A gentleman of strong mind and highly cultivated intellectual powers, which he kept in constant exercise, got a severe chronic gastritis; his appetite completely declined; he had frequent vomiting of sour matter; fœtid eructations; and such violent pain in the stomach, that he used, when the attack came on, to throw himself on the ground, and roll about in a state of indescribable agony. He applied to various practitioners, had several consultations on his case, and the opinion of the most eminent medical men was that he had incurable cancerous disease of the stomach. These symptoms continued for several years, but for the last two or three years they were quite intolerable. He had repeated cold sweats, vomited everything he took, even cold water, was reduced to a skeleton, and led a life of complete torture. Under such circumstances he tried, for the first time, by my advice, the acetate of morphia. He tried it first in doses of one-tenth of a grain three times a-day, and experienced the most unexpected relief. On the third day all his bad symptoms were gone. He had no pain, no vomiting, no sweats; his spirits were raised to the highest state of exhilaration, and he thought himself perfectly cured. He went out in the greatest joy, visited all his friends, and told them that he had at last got rid of his tormenting malady. In the evening he joined a supper party, indulged pretty freely, and next morning had a violent hæmatemesis, to which he had been for some time subject. All his old symptoms again made their appearance. He again had recourse to the acetate of morphia, and again immediately experienced relief, but the vomiting of blood again returned, so that he discontinued the remedy. This gentleman is now in the enjoyment of good health. He regulated his diet, left off all medicines by the mouth, used warm water injections, and thus recovered from his supposed cancer.

I do not bring this case forward as an instance of the curative effect of acetate of morphia, but as an instance of its powerful effect in allaying gastric irritation. I could adduce other cases in proof of its value in the treatment of the after stage of chronic gastritis, and particularly of that form in which pain and acidity are the prominent symptoms; but I per-

ceive my time has nearly expired. At my next lecture, I shall give some other particulars connected with this subject, and then proceed to the consideration of diseases of the small intestine.

London Medical and Surgical Journal.

CASE OF HÆMORRHAGE OF THE UTERUS, ARRESTED BY COMPRESSION OF THE DESCENDING AORTA.

BY DR. LOEWENHARD, OF BRESLAU.

Guided by theoretical views, Ploucquet was the first to advise compression of the descending aorta, in cases of hæmorrhage of the uterus. Walter James (London Medical Repository and Review, 1825 and 1828), and Ulsamen, insist upon the excellence of this method, and cite, in support of it, examples drawn from their own practice. In France, M. Baudelocque has contributed the most to make it known, in associating its use with that of spurred rye internally, in cases of hæmorrhage produced by the separation of the placenta. The following case appears so conclusive, that we do not hesitate to offer it to our readers. The combination of many energetic means ought to be resorted to only in cases in which alarming floodings threaten to terminate the life in a few moments. A woman of thirty-two years, of a delicate complexion, was delivered on the sixth June, at twelve o'clock, of a fine child. Instead of the placenta, the midwife observed a stream of blood augmenting constantly in volume. She endeavored to detach the placenta, and stop the hæmorrhage, but in vain. At half-past 4, consequently four hours and a half after the commencement of the flow, the reporter was called. The patient resembled a corpse; the face was pale and cold, as well as the hands; the pulse scarcely perceptible; speech unintelligible; the blood flowed in so great abundance, that the umbilical cord could not be seen hanging from the vagina. The hand was immediately introduced into the womb, and as the aorta beat forcibly (a fatal sign in hæmorrhage), the reporter compressed strongly this artery against the vertebral column; the blood ceased instantly to flow; at the same time, the midwife threw injections into the vagina of vinegar and water, and the patient took occasionally a spoonful of the following mixture:

R. Water acidulated with hydrochloric acid, oz. j.
Tincture of catechu,
Tincture of digitalis, āā oz. j.

At the end of a quarter of an hour it was attempted to detach the placenta, which proved a tedious process, because at first the blood flowed as soon as compression was removed; then, because the patient felt severe pains, and the uterus beginning to contract, rendered the operation difficult. The separation was finally effected, and the hæmorrhage successfully arrested. The patient so far recovered as to be able to nurse her child.—*Journal de Siebold.*

A similar case occurred in the hospital of St. Louis. After vain efforts to detach the placenta, the aorta was compressed externally above the

umbilicus, and thirty grains of spurred rye were given to the patient. The cessation of the hæmorrhage was not as prompt as in the preceding case; but, instead of flowing in a current, the blood now formed a thread-like stream. The action of the spurred rye was felt at the end of twenty minutes after the placenta was expelled, and the hæmorrhage ceased. It was time, for the patient was dying. She left the hospital at the end of fifteen days. It belongs to experience to decide between the two modes of compression; the one, external, through the abdominal walls; the other, internally, of the uterus and through its posterior parietes. However, we may, a priori, and according to the anatomical relation of the parts, decide in favor of the first method. At the first trial, it may appear difficult to reach the aorta through the abdominal walls; this is, however, not the case. After the accouchment, the two anterior recti muscles of the abdomen are separated several inches; the muscles themselves are attenuated and spread out, so that the abdominal wall is formed along the whole length of the linea alba, only by the skin, the aponeurosis, and the peritoneum; the compression is made very exactly, and with the greatest facility. Whilst this compression is being executed, the vagina remains free, and we may, if desirable, cause the hand of an assistant to be introduced for the purpose of detaching the placenta, or to make injections, &c. Through the uterus, the operation is difficult, because the hand is compressed and cannot be placed in the most convenient position to act efficaciously. Instead of compressing the aorta perpendicularly, the hand is obliged to act under the disadvantage of a horizontal position, which is very fatiguing.—*Révue Médicale.*

DISEASES OF THE LARYNX.

Considerable attention has of late been directed to affections of the larynx and its neighboring parts, while many of these important diseases have been omitted in the older authors. Numerous cases have recently found their way into the medical journals, where sudden death has occurred from disease going on in the respiratory tube. Sudden death has taken place, and acute inflammation been found involving the pharynx, larynx, and trachea; in other instances a small ulcer on the epiglottis has been detected; in others again there has been effusion in the sub-mucous cellular tissue; and the cases are not wanting where nothing morbid has been seen. In the latter, the cause of death is referred to spasm of the small muscles about the parts; but this spasm is not so readily accounted for. It is easy enough to explain why spasm should take place when inflammation, ulceration, or effusion exists, for here is something tangible which we cannot bring to our assistance when the whole apparatus is found healthy.

The theory of spasm, however, is objected to by some; yet where is the difficulty, when the subject is studied anatomically and physiologically? The glottis is possessed of a peculiar vitality, it is exquisitely sensible to any foreign matter, it acts harmoniously with every effort of res-

piration and inspiration, and is called into spasmodic action when a particle of food, however small, attempts to enter it.

Where, then, is the surprise that the larynx, apart endowed with a high degree of sensibility, and so actively engaged in the functions of respiration, should be the cause of death by spasmodic action? Such is the case; and the man dies as suddenly as though the medulla oblongata were divided.

It has been said that death is caused by the gradual narrowing of the passage, and consequent interruption of the oxygenation of the blood. This, doubtless, may be the case where death is not sudden, but not at all applicable when it is so.

"It is not," as has been beautifully explained by Sir C. Bell, "that actual obstruction takes place if ulceration ensue, or the deposition even of coagulable lymph that causes death, but it is that the muscles are spasmodically excited."

The following case, as illustrative of the foregoing remarks, will be of interest to your readers:—

Case.—Isaac Clark, aged 20, admitted into the hospital, Dec. 13, complaining of sore throat of three days' standing, swelling of the whole neck, throbbing of the temples, and general uneasiness; tongue white; skin hot; pulse frequent. Complains also of great difficulty in swallowing. Tonsils considerably swelled; no ulceration.

Hirudines xij. gutturi.
Pil. calomel. c. ant. 1 6tis.

14.—Great relief from the leeches; feels altogether better. Has taken some bread and milk, and experienced less difficulty in swallowing. Rep. pil.

15.—Throbbing of the temples; heat of skin greater; pulse full; no increase in the size of the tonsils; swallows with difficulty.

V.S. ad ℥xij. Rep. pil.
Inhalat. vapor. aquæ calid.

16.—Better this morning; no difficulty of breathing.

After the apothecary had gone round the hospital, he was suddenly summoned to this patient, whom he found in a state of suffocation.

After using the inhaler he seemed suddenly to choke, the face becoming livid, and breathing spasmodically. The jugular vein was opened, and the operation for laryngotomy performed by one of the surgeons, and artificial respiration attempted, but without any success. It was observed that the heart was pulsating strongly against the ribs, when respiration had ceased for some time.

Post-mortem Examination.—The only morbid appearances found were in the pharynx, larynx, and lungs. The pharynx was thickened in its walls, the membrane around being soft and infiltrated. The left tonsil, on being incised, exuded white clear pus. The epiglottis on the upper surface was thicker than natural, soft, and infiltrated, and presenting the appearance termed œdema. This was also evident in the mucous membrane between the epiglottis and the rima glottidis, but not sufficient to cause obstruction. The other parts of the larynx perfectly healthy. No

inflammation here or in the trachea. Lungs crepitant and healthy, but gorged with blood.

Thus it appears there was no evidence of inflammation in the larynx, save effusion in the cellular membrane; at least there was no redness or effusion of lymph. Inflammation must have existed in the pharynx from the pain during life, and the purulent secretion found after death. Therefore it must be said that the man died in consequence of the natural action of the part being altered, the integrity of which is necessary for every moment of existence.—*Lon. Med. and Surg. Jour.*

TWO CASES OF CHRONIC ANGINA TONSILLARIS, CURED BY MAKING INCISIONS IN THE TONSILS,

BY M. BAUDENS, D.M.P.

G***, a soldier, belonging to the 11th regiment of dragoons, æt. 28, had for some years suffered under chronic angina tonsillaris, which obliged him very frequently to enter the hospital. Incision of the tonsils was proposed as a remedy, and on the 20th of May, M. B. proceeded to perform the operation of incising the glands with a double-edged bistoury. He first divided the left tonsil, which was the largest, from below upwards, and then changing the bistoury into his other hand, divided the other tonsil in a similar way; the amygdalæ bled freely, and a gargle of mallows was prescribed, for the purpose of favoring the flow of blood. Eight days after the operation, this man left the hospital perfectly well.

A boy, aged 12, was attacked with chronic angina tonsillaris. Since the age of five he had suffered considerably from slight attacks of this nature, and his health had become much injured. The amygdalæ were much swollen, and deglutition was, from this cause, performed with great difficulty; when the boy uttered any cries or wept, the glands approached each other and threatened suffocation: his breathing during sleep was stertorous; some months previous a sister of this patient had died from the same complaint. A few days afterwards the same operation as in the preceding case was performed, but with more difficulty, on account of the intractability of the patient. In this case, as in the former, the incision of the amygdalæ was crowned with perfect success; in a few days all the unpleasant symptoms disappeared, the glands diminished in size, and he was discharged perfectly well.—*Ibid.*

CASE OF ENLARGED AND PAINFUL MAMMÆ.

To the Editor of the Boston Medical and Surgical Journal.

Sir,—The following case is at your service. Mrs. J., about 20 years of age, confined with her second child, December 8, 1833. Had a good getting up until about the middle of January, when a nipple-shell was pressed upon her breast so as to cause pain; the breast began to enlarge, and before the 18th of February it had broken twice—only a very *small* portion of the tumor having suppurated. The whole breast

continued enlarging, and more and more painful every day. The knowing ones prescribed their "full three score different modes of cure," but in spite of all, the tumor was disobedient and obstinately painful. No abatement, until a large epispastic, covering about one-third of the enlarged hemisphere, had done its appropriate work. This gave ease, and reduced the inflammation and bulk of the tumor, and so pleased my patient that she twice, with her own hands, applied the same liberal sized emp. epis. until nearly the whole of the breast was or had been blistered. Recovery was rapid.

There are peculiar states of enlarged and painful mammæ, best reduced and soothed by blistering.

1. Where the breasts have not been fully developed until after the birth of the child.

2. When the inflammation is not sufficient to produce speedy suppuration.

3. When the suppuration of a *small* portion is followed by the suppuration of another *small* portion, and so on for weeks and months.

Yours, &c. JABEZ WARD.

Perry Centre, N. Y., May 6, 1834.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, MAY 28, 1834.

VARIETIES OF SIZE IN THE HUMAN RACE.

In the course of his remarks on the variations of size in man, M. St. Hilaire next observes, that the influence of climate is not the only one which produces this variety.

The synoptic table before given, shows that there exists in hot countries some very large, and other very small tribes: but this result may be rendered much more general, and we may say that setting aside the cold regions, there exist almost always, under the same isotherm line, nations of large size, others of small stature, and again others intermediate between the two. We often find, even in regions very near to each other, and scarcely differing by their temperature, sometimes in the same region, races of very different size. Thus the Hottentots, bordering on the Caffres, but belonging incontestably to another type, are much smaller; and what is still more remarkable, we find united in several islands—for example, in the Friendly, Society, and Sandwich Isles—two classes of men of very unequal size. "In the Sandwich Islands," says M. Gaimard, "the population is divided into two very distinct classes, the chiefs and the common people. The former have an abundant, animal diet, are never obliged to apply to hard labor, and intermarry among themselves: they are large, strong, and well made. The second possess no lands, and are not always furnished with good food; they are generally of inferior size and less strength."

The agency of the causes by which M. Gaimard explains the inferiority of size in the poorer class is placed beyond a doubt, by the results of the important statistic work which M. Villermé has published on the size of

men in France. This learned naturalist has demonstrated in a general manner, the fact already pointed out by Haller and many other physiologists, that men become taller, other things being equal, in proportion as the country is richer, and the facilities for living greater; as dwellings, clothing, and especially food, improve; as the pains, fatigues, and privations experienced in childhood and youth, are less. From these facts, M. V. concludes that the miserable life led by the mountaineers must be placed among the causes which arrest in them the development of size; a very just consequence, and which ought to be extended to the northern nations subjected like the mountaineers, and in a still more marked manner, to the double influence of cold and misery. Thus, even in those cases where the influence of climate appears most evident, it is not exercised alone; and if we cannot deny it, at least we can no more attribute to it all the effects obtained.

As to the difference of size which exists among several nations of Austral Africa, this fact and many others cannot be entirely explained by either of the causes which have been pointed out, nor even by the simultaneous action of both. It appears to depend principally on a difference of race, and indicates that the conditions of the original type also exercise on the development of the size an influence for which it is proper to make some allowance.

We may even remark in a general manner that the nations of the Malay race are ordinarily rather larger, and those of the Mongol race almost constantly smaller, than those of the Caucasian and American race. The size of the Ethiopian is extremely variable; and it is impossible to express oneself in a general manner in regard to it, because several distinct varieties have been confounded under this name.

Finally, a more decisive proof still in favor of the influence which the conditions of type exercise on the size of races, has been given by Mr. Edwards in a work equally remarkable for the novelty of the method employed, and for the importance of the results obtained, which this able physiologist has recently published on the variety of races in mankind. It may in fact be remembered that M. Edwards has succeeded in showing that several Gallic tribes described by ancient authors have remained distinct to this day, and have preserved, at least in a certain number of individuals, their primitive size, as well as their physiognomy and their proper forms; a fact the more remarkable, as all these nations and several others, established in Gaul at divers epochs, have lived for several ages in one body as a nation, have adopted the same manners, lead the same kind of life, and have crossed each other an infinite number of times in the way of generation.

We are led, then, by the general and comparative study of hereditary variations of size, to acknowledge that a race has a very decided tendency to perpetuate itself with the same characters, and that powerful energetic causes of action can alone make it deviate from the line which is traced for it, as it were beforehand, by nature. These causes of deviation, and this tendency to the constant reproduction of the same characters, acting universally, are reciprocally modified, and cross and mingle, to use the expression, their action; and hence arise effects which are the result of a sort of struggle between them.

The tendency to perpetuate itself with the same characters is the more decided in a race, as this race is the more ancient; a proposition true in regard to animals as well as to man. The savage species, and one can

scarcely doubt that a great number of these species are races whose origin is lost in the night of time, are, as has been seen, extremely constant. Among the domestic species, the most ancient races are also very constant; but those which are still recent are preserved with difficulty, and tend to return into one of the types which have given them birth; which happens daily under our eyes, especially in the species of the dog, in which the crossing of the race so often produces new and transient forms.

These remarks would lead us to refer to a high antiquity, the primary formation of the principal human races. Their characters must, in fact, have arrived at a great degree of constancy and fixedness, not at a recent period, but many centuries since. In fact, several colonies, established almost from time immemorial, in a climate much warmer or much colder than that which they had quitted, have preserved their primitive characters almost without alteration, and have continued a remnant of their race notwithstanding the long and continued action of a great number of causes of variations. The physiological study of the human races may thus often make itself the useful auxiliary of history, as Mr. Edwards has so well shown by example; and sometimes when history itself is silent respecting the origin of a colony, it can supply the defect, repair the broken thread, and, reading the past in the present, re-establish the history of nations.

On the much debated question whether the human race has shrunk into smaller dimensions in these degenerate days, M. St. Hilaire succeeds in likewise deriving an argument from the facts already referred to. It has been seen, he observes, that all the domestic animals, to whatever class they belong, and however great and numerous the variations of their size, have on the whole increased or diminished but very little; that is, that their mean size differs very little from the size of their savage type, and consequently from their primitive size. It has even been remarked that the small number of those which present a small difference for the worse, are found among those which man habitually neglects, and to which he furnishes only a bad and insufficient nourishment. All those, on the contrary, which man takes care of and feeds well, have lost nothing of their primitive size, or even present a slight difference of excess.

Now if it be recollected that the changes produced in man by civilization, are in all respects analogous to those which domestication produces in animals, which is generally known, and which would indeed result from the facts already adduced; if we add that man has constantly retained the will and almost always had the power, in the state of civilization, to procure for himself a better nourishment, to defend himself better against the inclemency of the seasons, and to place himself in more favorable condition than in savage life; if it be remarked that the general principle above established in regard to domestic animals has been verified on a great number of species, some approaching man by their organization, others much more distant, and others, as may be shown, belonging to a very different class, that of birds; if from this it be concluded, as it should be, that this principle refers itself to very general causes of a high order, and if we do not make man a solitary exception, which would be highly improbable, we shall be compelled to admit the following consequence, confirmed by all which we know of savage nations—the mean height of the civilized men of our days differs little, if any, not only from that of the civilized men of ancient times, but even from that of men still living in the savage state, before all civilization.

Several travellers, and especially Peron, have established the fact that savage nations, so far from being stronger than civilized, are usually weaker. Man, therefore, in becoming civilized has lost nothing of his strength. In showing that he must also have preserved his primitive size, we adduce an argument not without some weight against that philosophy, more ingenious than solid, which points out to us what is called a state of nature as a state of physical perfection which man ought to seek to approach. Man has not then degenerated by becoming civilized; he has not become weak by being intelligent; he has lost nothing of his real force and his original greatness, by multiplying them through address and industry; and it is not by retracing his steps that he will advance more rapidly towards the end to which his efforts have not ceased to tend, sometimes even without his knowledge, the moral, intellectual, and physical development of the human race.

Experiments upon Digestion. By Carlo Mateucci.—Carlo Mateucci, desirous of following up the experiment of Dr. Wilson Philip, upon the influence of the galvanic battery on digestion, &c., with whom he perfectly coincides in opinion, devised the following experiment, for the purpose of proving the manner in which the electric current, transmitted to the stomach by the eighth pair of nerves, acts in transforming alimentary matter into chyle. He took a piece of boiled meat, and having added some water, in which were dissolved salt and subcarbonate of soda, kept it at an equable degree of heat, triturating it until it was reduced to a pulpy mass, analogous to that which is formed by mastication. He then put this pulp into a bladder moistened with a solution of salt, and placed it in contact with a platina wire, another wire being plunged into the interior of the mass. As soon as these two wires were brought in contact with a Voltaic battery of eighteen to twenty plates of copper and zinc, decomposition commenced about the extremities of the wires. At the negative extremity, which was in the centre of the mass, white bubbles of hydrogen gas were perceived; the liquid did not contain any traces of albumen, and was found to be alkaline. Along the walls of the bladder, and especially about the positive end of the wire, there was formed a dense white coat, acid, and distended with bubbles of oxygen gas. The collected substance was flocculent, and coagulated if, after having been dissolved in water, it was exposed to heat.—*Lon. Med. and Surg. Jour.*

New Instrument for Relieving Incontinence of Urine.—An instrument has been recently invented by Signor G. B. Chiesa, for the purpose of remedying the inconvenient apparatus now used for incontinence of urine; it is called the urétrotlibe, or compressor urethræ, and consists of a small ring of silver, nearly elliptical, and consequently adapted to the shape of the penis; it is about an inch and a half in length, and half an inch broad, and is divided into three parts, which are united together by means of a screw; the middle segment is pierced in its centre by a small screw, having a well padded button at the extremity, which serves to compress the urethra, and by turning the screw allows the degree of pressure to be regulated.—*Ibid.*

Dried Herbs.—Mr. Lindsey, the intelligent manager of the gardens at Chiswick house, has just presented to the Medico-Botanical Society some very beautiful and well-preserved specimens of dried plants and herbs, retaining in a peculiar degree the whole of the volatile oil and aroma and the color of the recent plant. The plan adopted by Mr. Lindsey is to dry the plants in a close and dark room, and not, as is usually the case, by exposure to a current of air and the action of light. When the separation of the aqueous particles is effected by their evaporation, and they are tolerably dry, he submits them to pressure in small quantities enveloped in paper, until the oil appears on the surface, and which is known by its discoloration; by this, all change of color by the action of light, or further loss of volatile matters by evaporation, is prevented. In potherbs, as well as medicinal plants, the improvement and superiority is very decided.—*London paper.*

Lucifer Matches.—The following mode of making these is very simple, and much less dangerous than other plans in use:—Take of chlorate of potash twelve parts, sulphuret of antimony four parts, animal glue or gum tragacanth three parts, and as much water as will suffice to bring the mixture to the consistence of a thick paste. The sulphuret of antimony is to be pulverized first, and the water with the glue or gum in solution added to it and well incorporated, when the chlorate of potash is to be gradually added. The antimony and chlorate must never be rubbed together in a dry state, as an explosion would be the result. The matches which are to be plunged in this paste, should be previously dipped about six or eight lines of their length into melted sulphur. The paper which is used to inflame them, is made by coating strong paper with fish glue, and covering this with a layer of very finely pulverized glass.—*Mon. En.*

Hydrophobia Cured by the Vapor Bath.—M. Buisson has published a memoir in France, to show the efficacy of the vapor bath in curing hydrophobia. The bath was heated to 126 Fahrenheit, and caused profuse perspiration. Many cases are stated, in which this remedy was successful.—*London Medical Review.*

Meeting of the Massachusetts Medical Society.—The members throughout the Commonwealth will bear in mind that their annual meeting will be holden on Wednesday next. Dissertation by Zaddeus Howe, M.D., of Billerica.

Whole number of deaths in Boston for the week ending May 23, 16. Males, 9—Females, 7.
Of lung fever, 4—fits, 3—typhous fever, 1—phthisic, 1—consumption, 2—quinsy, 1—debility, 1—old age, 1—scarlet fever, 1—croup, 1. Stillborn, 6.

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR. at 184 Washington Street, corner of Franklin Street, to whom all communications must be addressed, *post-paid*. It is also published in Monthly Parts, on the 1st of every month, each Part containing the weekly numbers of the preceding month, stitched in a cover.—Price $3,00 a year in advance, $3,50 after three months, and $4,00 if not paid within the year.—Every seventh copy, gratis.—Postage the same as for a newspaper.